

REMARKS

Claims 1-15 are pending. Claims 1, 3-7, and 9 have been amended and new claims 10-15 have been added to recite additional features of the embodiments disclosed in the specification.

In the Office Action, claims 1-9 were rejected under 35 USC § 103(a) for being obvious in view of a Beckmann-Choi combination. Applicants request the Examiner to withdraw this rejection for the following reasons.

The Beckmann publication discloses a medium access control (MAC) layer that sets a data rate of a transport channel by selecting different transport formats. The transport formats differ in terms of their transmission time intervals (TTI), RLC sizes, and numbers of transport blocks. These differences will therefore cause the data rates to be different. But, Beckmann does not teach or suggest the method defined in amendment claim 1.

As amended, claim 1 recites controlling a reverse data rate according to reverse data rate control information included in a first grant message based on the application range indication information, wherein “if the application range indication information indicates that contents of the first grant message are to be applied to less than all ARQ channels in an ARQ-channel unit group included in a first period of time, then:

(a) an application range of the contents of the first grant message is to be limited to a prescribed range, and

(b) if a non-acknowledgement (NAK) signal is received from the base station over one of said less than all ARQ channels in the ARQ-channel unit group, a packet is to be retransmitted at a reverse data rate indicated in a second grant message received before the first

grant message, instead of at a data rate indicated in the first grant message.” The Beckmann publication does not teach or suggest these features.

The Choi patent discloses a base station which grants a channel to a mobile terminal based on the transmission of a control packet. However, Choi does not teach or suggest the features of claim 1 missing from the Beckmann publication, e.g., Choi does not teach or suggest that the grant information includes reverse data rate control information and application range indication information from a base station. Rather, the control messages of Choi only provide an acknowledgment/non-acknowledgment indication with regard to prior transmissions of data packets.

Choi also does not teach or suggest that if the application range indication information indicates that contents of the first grant message are to be applied to less than all ARQ channels in an ARQ-channel unit group included in a first period of time, then an application range of the contents of the first grant message is to be limited to a prescribed range, and if a non-acknowledgement (NAK) signal is received from the base station over one of said less than all ARQ channels in the ARQ-channel unit group, a packet is to be retransmitted at a reverse data rate indicated in a second grant message received before the first grant message, instead of at a data rate indicated in the first grant message.

Based on these differences, it is respectfully submitted that claim 1 and its dependent claims are allowable over a Beckmann-Choi combination.

Dependent claim 3 recites that the application range indication information includes (a) ALL_ACID_IND information indicating whether the first grant message is to be applied to all

or fewer than all the ARQ-channels in the ARQ-channel unit group, and (b) PERSISTENCE information indicating whether the first grant message is to keep being applied to one of said less than all the ARQ-channels in the ARQ-channel unit group. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Dependent claim 4 recites that “the prescribed range corresponds to said less than all the ARQ channels in the ARQ-channel unit group.” These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 6 recites some features similar to those which patentably distinguish claim 1 from the cited combination of references. For example, claim 6 recites receiving a first grant message including reverse data rate control information and application range indication information from a base station, and controlling the reverse data rate according to the reverse data rate control information included in the first grant message based on the application range indication information.

In addition, claim 6 that if the application range indication information indicates that contents of the first grant message are to be applied to less than all ARQ channels in an ARQ-channel unit group included in a first period of time, then (a) an application range of the contents of the first grant message is to be limited to a prescribed range and (b) if non-acknowledgement (NAK) signals are received over first and second ones of said less than all ARQ channels in the ARQ-channel unit group, packets corresponding to the NAK signals are to be retransmitted at one or more reverse data rates indicated in a second grant message received before the first grant message, instead of at a data rate indicated in the first grant message. These

features are not taught or suggested by the cited references, whether taken alone or in combination.

Dependent claim 7 recites that each value of the ALL_ACID_IND and the PERSISTENCE is FALSE. These features are not taught or suggested by the cited references, whether taken alone or in combination.

New claims 10-15 have been added to the application.

Claim 10 recites that the contents of the first grant message are to be applied to only one ARQ channel in the ARQ-channel unit group. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 11 recites that the prescribed range corresponds to only one ARQ channel in the ARQ-channel unit group, the NAK signal received over said only one ARQ channel. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 12 recites the additional steps of receiving a third grant message after the first grant message; receiving an acknowledgment (ACK) signal during a second period of time after the first period of time, the ACK signal received over one of said less than all ARQ channels; and determining a reverse data rate based on contents of the third grant message or command contents of a rate control bit, wherein the second period of time includes a repeated progression of the ARQ channels in the ARQ-channel unit group. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 13 recites that the application range indication information includes ALL_ACID_IND information indicating whether the first grant message is to be applied to all or fewer than all the ARQ-channels in the ARQ-channel unit group, and PERSISTENCE information indicating whether the first grant message is to keep being applied to one of said less than all the ARQ-channels in the ARQ-channel unit group. These features are not taught or suggested by the cited references, whether taken alone or in combination.

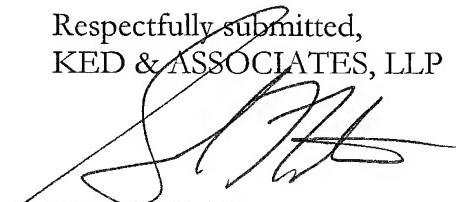
Claim 14 recites that the values of ALL_ACID_IND and the PERSISTENCE are TRUE and FALSE, respectively. These features are not taught or suggested by the cited references, whether taken alone or in combination.

Claim 15 recites the additional steps of receiving a third grant message after the first grant message; receiving acknowledgment (ACK) signals during a second period of time after the first period of time, the ACK signals received over the first and second ARQ channels; and determining a reverse data rate based on contents of the third grant message or command contents of a rate control bit, wherein the second period of time includes a repeated progression of the ARQ channels in the ARQ-channel unit group. These features are not taught or suggested by the cited references, whether taken alone or in combination.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and timely allowance of the application is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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